

REMARKS

This paper is responsive to a Non-Final Office action dated November 14, 2007. Claims 1-30 were examined. Claims 1-12, 14-15, 18-25, and 27-30 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,594,245 to Rimhagen et al. (hereinafter, "Rimhagen"). Claims 13 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rimhagen in view of U.S. Patent No. 6,427,075 to Burg et al. (hereinafter, "Burg"). Claims 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rimhagen in view of U.S. Publication No 2003/0061422 to Repice et al. (hereinafter, "Repice").

Informalities noted in review have been corrected in claims 1 and 15.

Applicants respectfully traverse the rejections above for the following reasons. With respect to claim 1, Applicants respectfully submit that Rimhagen fails to teach *in the centralized radio processing portion, compensating for a fixed delay associated with the transport medium coupling the centralized radio processing portion and one of the remote air interface radio portions in evaluating a time period corresponding to a variable delay between a transmission by a mobile station and receipt of the transmission by the centralized radio processing portion*. There is simply no teaching in Rimhagen regarding compensation for a fixed delay associated with a transport medium.

In an embodiment of the instant invention, as shown, e.g., in Fig. 2, multiple dumb radio heads are connected to a centralized radio processing portion, the BTSs hotels 201 and 202. In an embodiment as described in paragraph 1028, there are only a few BTS hotels in a typical metropolitan area. As described in the instant application at paragraph 1052, in an exemplary embodiment, a cell radius is 35 Km. That cell has one or more simple radio heads connected by the transport medium to the centralized BTS hotels. Unless otherwise accounted for, the size of the cell radius has to be reduced by the equivalent delay through the fiber from the radio head to the centralized processing portion (the BTS hotel). For example, if the fiber were 24 km, the allowable cell radius would be zero, severely limiting the transport architecture described in the instant application. Thus, the need for the *compensation* recited in claim 1 for the fixed delay of the transport medium. In an embodiment recited in Fig. 4, the compensating includes subtracting out the fixed delay.

The Office action still maintains that the WNC of Fig. 1 of Rimhagen corresponds to the claimed central radio processing portion. Applicants respectfully disagree. As pointed out in the instant specification in paragraph 1054, in prior art systems the base transceiver station was located in close proximity to the air interface with the mobile station so that the delay due to communication with the BTS could be neglected in timing calculations. Rimhagen teaches in col. 3, lines 34-37 that “the CSs 110, 135, 140 correspond to BSs (not shown).” Rimhagen also teaches at col. 3, lines 33-35 that a BS [base station] is associated with each CS. Conventionally, the base station (BS) associated with each CS would do the timing calculations. There is no teaching to the contrary in Rimhagen. Further, Rimhagen teaches that WNC in Fig. 1 is a mobile switching center (MSC), not a base station. See col. 3, lines 41-45. There is no teaching in Rimhagen that the MSC needs to or does account for fixed delays, nor is there any teaching that the WNC needs to or does account for fixed delays.

The Office action points to the local wireless network embodiment shown in Fig. 4 and the associated description in column 6, lines 26-44 and 62-67. There is nothing in this portion (or any other) that teaches compensating for a fixed delay associated with the transport medium coupling the centralized radio processing portion and one of the remote air interface radio portions. In fact, Rimhagen expressly teaches at col. 6, lines 30-31 that “[i]n this embodiment, the synchronization, TA, and protocol issues are eliminated.” Thus, with no timing advance issues, there can be no possible reason for the hub 415 of Fig. 4 to deal with compensating for the fixed delays. The issues are eliminated according to Rimhagen. Rimhagen further teaches at col. 7, 3-10 that the TA issue is eliminated. Thus, not only does Rimhagen teach nothing about compensating for fixed delays with respect to Fig. 4, he expressly teaches that there is no need for timing advance. In fact Rimhagen teaches that the same frequency/time slot pair can be assigned to several users in different locations in the building. Col. 6, lines 59-61.

In spite of Rimhagen teaching expressly that the TA issue is eliminated, the Office action maintains in paragraph 1 that “[t]he TA . . . compensates for the delay between the radio heads and the hub.” Applicants respectfully submit the Examiner’s position is inconsistent with Rimhagen. Further, even assuming *arguendo* that there is a TA that is utilized in the Rimhagen embodiment in Fig. 4, nowhere does Rimhagen teach compensating for a fixed delay. The TA is

used to account for a variable delay. The other references of record fail to make up for the deficiency of Rimhagen.

Accordingly, applicants submit that claim 1 and all claims dependent thereon distinguish over Rimhagen and the other reference of record.

Similarly, claim 15 recites that *the host processing part [is] configured to determine a time interval between transmission by a mobile station in communication with the remote air interface part (RH) and receipt of the transmission at the host processing part*. Rimhagen fails to teach that task being performed in WNC 105 or hub 415. Accordingly, applicants submit that claim 15 distinguishes over Rimhagen and Rodman.

Claim 27 recites *means, in the host processing part, for evaluating a timing period associated with transmission of the communication from the mobile station to the host processing part and for compensating when performing the evaluating, for a fixed delay associated with a transport medium coupling the host processing part and a remote radio interface part that receives the communication from the mobile station and forwards the communication over the transport medium to the host processing part*. For similar reasons to that pointed out above, neither Rimhagen nor the other references of record, alone or in combination, teach the recited means for evaluating and for compensating.

In summary, claims 1-30 are in the case. All claims are believed to be allowable and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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